



WFVA/NOKIA File Nos.: 944-004.045-1/2004P98087US

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Re application of: Peeter Pruuden, et al.

Serial No.: 10/798,826 : Examiner: CongVan Tran

Filed: 10 March 2004 : Group Art Unit: 2681

For: **MOBILE PROFILE FOR APPLICATION SERVERS**

MAIL STOP APPEAL BRIEFS - PATENTS

Commissioner for Patents

P.O. Box 1450

Alexandria, Virginia 22313-1450

BRIEF FOR APPELLANT

Sir:

This is an appeal from an Official Action mailed 6 March 2007, made final.

A Notice of Appeal was mailed on 29 June 2007 with a return receipt postcard.

The Patent Office stamped and mailed the return receipt postcard back to applicant on 2 July 2007.

This Brief is being filed in triplicate with a fee in the amount of \$500.00.

I. THE REAL PARTY IN INTEREST

The real party in interest is Nokia Corporation, a corporation duly organized and existing under the laws of Finland, and having a principal place of business at Keilalahdentie 4, FIN-02150, ESPOO, Finland.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals and interferences.

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III. STATUS OF CLAIMS

Claims 1 - 21 are pending, stand rejected, and are being appealed.

IV. STATUS OF AMENDMENTS

The RCE mailed on 26 January 2007 and Response mailed 31 January 2007 had no amendments to the claims and was entered in the March 6th Final Rejection.

V. SUMMARY OF CLAIMED SUBJECT MATTER

1. The Problem In The Art

As described in the background of the invention section of the patent application (see pages 1-3), in the prior art the Java 2 Enterprise Edition (also known as "J2EE") architecture specifies four kinds of containers: Enterprise JavaBeans (EJB) container, Web container, Application Client container, and Applet container. **Containers are the interface between a component and the low-level platform specific functionality that supports the component.** Before a Web, enterprise bean, or application client component can be executed, it must be assembled into a J2EE application and deployed into its container.

The assembly process involves specifying container settings for each component in the J2EE application and for the J2EE application itself. The container settings customize the underlying support provided by the J2EE server, which includes services such as security, transaction management, Java Naming and Directory Interface™ (JNDI) lookups, and remote connectivity. The container also manages nonconfigurable services such as enterprise bean and servlet life cycles, database connection resource pooling, data persistence, and access to the J2EE platform application program interfaces (APIs).

In the J2EE architecture, a container serves as an authorization boundary between the components it hosts and their callers. The authorization boundary exists inside the container's authentication boundary so that authorization is considered in the context of successful authentication. For inbound calls, the container compares security attributes from the caller's credentials with the access control rules for a target component. If the rules are satisfied, the call is allowed; otherwise, the call is rejected.

The container runtime provides the deployed enterprise beans with transaction and security management, network distribution of remote clients, scalable management of resources, and other services that are generally required as part of a manageable server platform.

Each of the four types of containers provide a specific set of services to the components they host. The type of component specifies which container should be used.

One problem in the art is that J2EE architecture does not currently have specific support for mobility components such as Presence, Location, Instant Messaging etc. Such mobility components all require an additional set of functionality that is currently not provided by existing containers. Typically, the J2EE mobility profile is used with additional libraries that are specifically needed to be deployed for also deploying mobility components.

In the prior art, the above-mentioned libraries can be specifically built and even standardized (although currently they are not), but a complete set of such required functionalities is not specified in the known standards. But they are still all required for the mobility components in most cases. So in order to develop and deploy such a mobility component, the developer must specifically make sure the supporting components get deployed on the system too. However, there is still no guarantee that once the

component is eventually deployed in another system, the required components are deployed there as well, since the specification for the set of required functionalities is missing.

In view of this, there is a need in the art for a solution to this problem.

2. The Claimed Solution

Figure 1 shows an implementation of the basic invention in a network, such as a wireless network generally indicated as 10, having a mobile terminal 12, a network infrastructure 14, coupled to an application node 16, which is shown and described herein by way of example as a managed application server platform (J2EE) 18, as described on page 7, lines 18-23. The network infrastructure 14 may include among other elements a core network node 20 having a mobility profile module interface 22 and other known core network node modules 24, as described on page 7, lines 24-27. In the application node 16, the managed application server platform (J2EE) 18 may include a mobility profile module 30, mobility specific components 32 (e.g. presence, location, instant messaging, etc.) and other application node components 34, as described on page 8, lines 1-4.

As recited in claim 1, the present invention provides a new and unique method or technique for identifying, compiling, deploying, managing, de-deploying, or some combination thereof, mobility components in such a managed application server platform, e.g. J2EE 18, by instantiating a mobility profile in such an application server execution environment for making common mobile functionality available to the mobility specific components 32, as described on page 7, lines 4-14.

Figure 2 shows an example of a J2EE container architecture approach, using various mobility profile instances 54, including presence 54a, location 54b, multimedia messaging service (MMS) 54c and a mobility profile entity instance 54d.

It is understood that the term "instantiation" is a term used in art of computer programming and understood to mean the process of substituting specific data, instructions, or both into a generic program unit to make it usable in a computer program, as described on page 11, lines 12-18.

As recited in claims 2-3, the instantiation of the mobility profile allows the application of mobility specific functionalities in the server side in a similar manner that has been provided with other managed containers, where the mobility specific functions may include either accounting charging, subscriber management, authentication, identity management, authorization policy management, device profile management, session & transaction management, service registry, workflow management, or some combination thereof, as described on page 8, lines 15-24.

As recited in claim 4, the mobility profile module 30 may either instantiate the mobility profile on top of an existing container, or may implement the mobility profile as an independent container, as described in the paragraph bridging pages 8-9 of the patent application.

As recited in claim 5, the mobility profile module 30 may also instantiate the mobility profile to a given container in a manner that then makes it possible to provide mobility profile contracts to the components utilizing available functionalities, as described on page 9, lines 1-5.

As recited in claim 6, the mobility profile module 30 may also instantiate the mobility profile in a separate container to allow fine-tuning of the mobility specific capabilities with respect to existing resources, as described on page 9, lines 5-9.

As recited in claim 7, the mobility profile module 30 may implement the functionalities available as a packaged profile for mobility components that are not available in a given container specification, as described on page 9, lines 9-12.

As recited in claim 8, the method may include implementing the instantiating of the mobility profile in the mobility profile module 30 in the application node 16.

As recited in claim 9, the method includes implementing the instantiating of the mobility profile in either a mobility profile module like element 30 in an application node like element 16, a mobility profile module interface like 22 in a core network like 20, or some combination thereof.

As recited in claim 10, the present invention may also take the form of a node for identifying, compiling, deploying, managing, or de-deploying, mobility components in a managed application server platform of a network, where the node instantiates a mobility profile in an application server execution environment for making common mobile functionality available to mobility specific components. The node may also include the features recited in claims 11-19, which are consistent with the features recited in claims 2-9 set forth above.

As recited in claims 20 or 21, the present invention may be implemented via a computer program or may include a computer program product with a program code, which program code is stored on a machine readable carrier, may be used for carrying out the steps according to claim 1 when the computer program is run in a processing means in a mobility profile module or other suitable module.

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

The following is a concise statement of each ground of rejection presented for review:

The non-obviousness of claims 1-21 as being anticipated by Gustafsson (United States Patent Application Publication No. US 2004/0218605).

VII. ARGUMENTS

A. INDEPENDENT CLAIMS 1 AND 10

The main independent claims 1 and 10 are rejected as being anticipated based on Gustafsson et al.

The rejection is respectfully traversed because Gustafsson et al. does not teach or suggest a method for identifying, compiling, deploying, managing or de-deploying mobility components in a managed application server platform of a network, wherein a mobility profile in an application server execution environment is instantiated for making common mobile functionality available to mobility specific components, as recited in claim 1. The mobility profile specific functions may include Accounting Charging, Subscriber Management, Authentication, Identity Management, Authorization Policy Management, Device Profile Management, Session & Transaction Management, Service Registry, and/or Workflow management; while the mobility specific components include Presence, Location, Instant Messaging, etc., as also recited in claim 3.

In comparison, Gustafsson et al. discloses a method for access selection in a multi-access IP network such as network 200 (Figure 2) or a multi-access communications system 300 (Figure 3). In the reasoning in paragraph 3 of the March 6th Office Action,

Gustafsson et al.' elements 265, 365 and 366 are being cited as disclosing the aforementioned underlined feature of the claimed invention. However, it is respectfully submitted that Gustafsson et al.' elements 265, 365 and 366 do not perform the claimed functionality for the following reasons:

In Figure 2, the multi-access IP network 200 includes a mobile multi-access terminal node 210, an IP-based network 240 and an always best connected service network 260. The always best connected (ABC) service network 260 includes a mobility server 265 that performs various mobility-related functions and can for example be based on solutions for Mobile IPv4, Mobile IPv6, and SLM (session layer mobility and/or SIP (session initiated protocol) mobility, as described in paragraph [0052], fourth sentence. As the terminal 210 changes access networks, the mobility server 265 also maintains application sessions during the handoff by communicating with a mobility client 216 of the terminal 210. The always best connected service network 260 also includes an access wizard 261 that is a server unit/function arranged on the network side which collects database information and selects an access network (e.g. element 120 in Figure 1) that is considered to be the best for and thus should be used by the terminal 210, as described in paragraph [0042]. However, it is respectfully submitted that the mobility server 265 and/or the access wizard 261 both do not instantiate a mobility profile in an application server execution environment for making common mobile functionality available to mobility specific components, as claimed herein. For example, Gustafsson et al.' element 265 does not perform the claimed functionality

Further, in Figure 3 of Gustafsson et al., the multi-access communications system 300 is very briefly described in paragraphs [0054] and [0055] and includes a mobile multi-access terminal node 310, an IP-based network 340 and an always best connected (ABC)

service network 360, although the names of elements 310 and 340 are not specifically called out. The ABC service network 360 includes an application server unit/function 366 that collects/receives database information, which is used to adapt the application 317 of the mobile multi-access terminal node 310 to suit the particular terminal/user, e.g. the application may be altered in response to a particular screen size of different user device 310. The ABC service network 360 includes an access wizard 361 and a mobility server 365 having functionalities that are not described in relation to Figure 3 but that would appear to be consistent with that described above in relation to elements 261 and 265 in Figure 2. For all these reasons, it is respectfully submitted that the application server 366, the mobility server 365 and/or the access wizard 361 all do not instantiate a mobility profile in an application server execution environment for making common mobile functionality available to mobility specific components, as claimed herein. For example, Gustafsson et al.' elements 365 and 366 do not perform the claimed functionality.

Independent claim 10 recites a node having features consistent with the subject matter recited in claim 1.

In view of the aforementioned, Gustafsson et al. does not anticipate the subject matter of the main claims 1 and 10, since Gustafsson et al.' elements 265, 365 and 366 all do not perform the aforementioned underlined feature of the claimed invention.

Response to Remarks in Paragraph 1 of the March 6th Office Action

Furthermore, paragraph 1 of the March 6th office action provides further remarks in addition to that set forth in paragraph 3 of the office action. The remarks in paragraph 1 are in response to applicant's remarks in a communication submitted on 31 January 2007. The following is a reply to the remarks in paragraph 1 of the March 6th office action.

First, paragraph 1 of the March 6th office action takes the position that features such as identifying, compiling, deploying, managing, or de-deploying, mobility components is structurally integral with a communication network. In reply, it is respectfully submitted that for all the reasons set forth above the functionality of these features is not inherent in the communication network of Gustafsson et al., especially in relation to the point of novelty of the claimed invention, i.e. instantiating a mobility profile in an application server execution environment for making common mobile functionality available to mobility specific components, as claimed. For example, it is respectfully submitted that Gustafsson et al. does not teach or suggest that elements 265, 365 or 366 perform any of these so-called inherent features, especially in relation to instantiating a mobility profile in an application server execution environment for making common mobile functionality available to mobility specific components, as claimed.

Moreover, in reply to the points raised in the paragraph bridging pages 2-3 of the March 6th office action regarding paragraphs [0051] and [0052], it is respectfully submitted that, while Gustafsson et al.' paragraph [0051] describes that the always best connected (ABC) service network 260 in Figure 2 provides services related to mobility, security and access handling, these service are not related to instantiating a mobility profile in an application server execution environment for making common mobile functionality available to mobility specific components, as claimed. For example, consistent with that stated above,

it is respectfully submitted that in Gustafsson et al.' paragraph [0052] describes that in the always best connected (ABC) service network 260 in Figure 2, the mobility server 265 merely performs various mobility-related functions and can for example be based on

solutions for Mobile IPv4, Mobile IPv6, and SLM (session layer mobility and/or SIP (session initiated protocol) mobility. See paragraph [0052], fourth sentence.

B. DEPENDENT CLAIMS 2-9 AND 11-21

Dependent claims 2-9 and 11-21 are rejected as being anticipated based on Gustafsson et al. However, it is respectfully submitted that these claims depend directly or indirectly from the main independent claims, contain all the limitations thereof, and are deemed patentable over Gustafsson et al. for all the reasons set forth above.

Moreover, in particular it is respectfully submitted that Gustafsson et al. does not teach or suggest that the mobility profile allows applying mobility specific functionalities in the server side in a similar manner that has been provided with other managed containers, especially where the mobility specific functions may include either accounting charging, subscriber management, authentication, identity management, authorization policy management, device profile management, session & transaction management, service registry, workflow management, or some combination thereof, as recited in claims 2-3 or 11-12. For example, Gustafsson et al.' elements 265, 365 and 366 all do not perform the aforementioned mobility profile feature recited in claims 2-3 or 11-12, especially in relation to the instantiation of the mobility profile in the manner recited in claims 1 or 10.

It is respectfully submitted that Gustafsson et al. does not teach or suggest that the mobility profile module may either instantiate the mobility profile on top of an existing container, or may implement the mobility profile as an independent container, as recited in claim 4 or 13. For example, Gustafsson et al.' elements 265, 365 and 366 all do not perform the aforementioned mobility profile feature recited in claim 4 or 13, especially in relation to the instantiation of the mobility profile in the manner recited in claims 1 or 10.

It is respectfully submitted that Gustafsson et al. does not teach or suggest that the mobility profile module may also instantiate the mobility profile to a given container in a manner that then makes it possible to provide mobility profile contracts to the components utilizing available functionalities, as recited in claim 5 or 14. For example, Gustafsson et al.' elements 265, 365 and 366 all do not perform the aforementioned mobility profile feature recited in claim 5 or 14, especially in relation to the instantiation of the mobility profile in the manner recited in claims 1 or 10.

It is respectfully submitted that Gustafsson et al. does not teach or suggest that the mobility profile module may also instantiate the mobility profile in a separate container to allow fine-tuning of the mobility specific capabilities with respect to existing resources, as recited in claim 6 or 15. For example, Gustafsson et al.' elements 265, 365 and 366 all do not perform the aforementioned mobility profile feature recited in claim 6 or 15, especially in relation to the instantiation of the mobility profile in the manner recited in claims 1 or 10.

It is respectfully submitted that Gustafsson et al. does not teach or suggest that the mobility profile module may implement the functionalities available as a packaged profile for mobility components that are not available in a given container specification, as recited in claim 7 or 16. For example, Gustafsson et al.' elements 265, 365 and 366 all do not perform the aforementioned mobility profile feature recited in claim 7 or 16, especially in relation to the instantiation of the mobility profile in the manner recited in claims 1 or 10.

It is respectfully submitted that Gustafsson et al. does not teach or suggest that the method may include implementing the instantiating of the mobility profile in the mobility profile module in the application node, as recited in claim 8 or 17. For example, Gustafsson et al.' elements 265, 365 and 366 all do not perform the aforementioned

mobility profile feature recited in claim 8 or 17, especially in relation to the instantiation of the mobility profile in the manner recited in claims 1 or 10.

It is respectfully submitted that Gustafsson et al. does not teach or suggest that the method may include implementing the instantiating of the mobility profile in either a mobility profile module like element 30 in an application node like element 16, a mobility profile module interface like 22 in a core network like 20, or in a core network itself like 20, or some combination thereof, as recited in claim 9, 18 or 19. For example, Gustafsson et al.' elements 265, 365 and 366 all do not perform the aforementioned mobility profile feature recited in claim 9, 18 or 19, especially in relation to the instantiation of the mobility profile in the manner recited in claims 1 or 10.

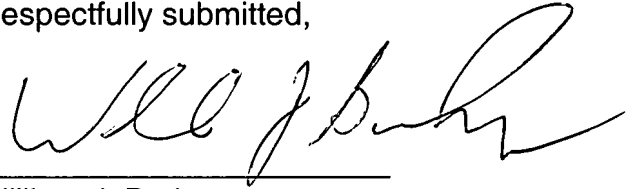
It is respectfully submitted that Gustafsson et al. does not teach or suggest that a computer program product with a program code, which program code is stored on a machine readable carrier, may be used for carrying out the steps according to claim 1 when the computer program is run in a processing means in a mobility profile module or other suitable module, or implementing the steps of the method recited in claim 1 via a computer program run in such a module, as recited in claim 20 or 21. For example, Gustafsson et al.' elements 265, 365 and 366 all do not perform the aforementioned mobility profile feature recited in claim 20 or 21, especially in relation to the instantiation of the mobility profile in the manner recited in claims 1 or 10.

In view of the aforementioned, Gustafsson et al. does not anticipate the subject matter of the claims 2-9 or 11-21, since Gustafsson et al.' elements 265, 365 and 366 all do not perform the aforementioned features of the claimed invention.

C. CONCLUSION

In view of this, it is respectfully submitted that the reasoning in the rejection of these claims is in error, and should be reversed.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'WJ Barber', written over a horizontal line.

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IX. APPENDIX

The following claims are pending in the patent application:

1. (Previously presented) A method for identifying, compiling, deploying, managing, or de-deploying, mobility components in a managed application server platform of a network, wherein the method comprises:

instantiating a mobility profile in an application server execution environment for making common mobile functionality available to mobility specific components.

2. (Original) A method according to claim 1, wherein the mobility profile allows applying mobility specific functionalities in a server side in a similar manner that has been provided with other managed containers.

3. (Previously presented) A method according to claim 1, wherein mobility specific functions include either accounting charging, subscriber management, authentication, identity management, authorization policy management, device profile management, session & transaction management, service registry, workflow management.

4. (Original) A method according to claim 1, wherein the mobility profile is either instantiated on top of an existing container, or implemented as an independent container.

5. (Previously presented) A method according to claim 1, wherein the method includes instantiating the mobility profile to a given container in a manner that then makes it possible to provide mobility profile contracts to the components utilizing available functionalities.

6. (Previously presented) A method according to claim 1, wherein the method includes instantiating the mobility profile in a separate container to allow fine-tuning of the mobility specific capabilities with respect to existing resources.

7. (Previously presented) A method according to claim 1, wherein the method includes implementing the functionalities available as a packaged profile for mobility components that are not available in a given container specification.

8. (Previously presented) A method according to claim 1, wherein the method includes implementing the instantiating of the mobility profile in a mobility profile module in an application node.

9. (Previously presented) A method according to claim 1, wherein the method includes implementing the instantiating of the mobility profile in either a mobility profile module in an application node, a mobility profile module interface in a core network, or some combination thereof.

10. (Previously presented) A node for identifying, compiling, deploying, managing, or de-deploying, mobility components in a managed application server platform of a network, wherein the node instantiates a mobility profile in an application server execution environment for making common mobile functionality available to mobility specific components.

11. (Original) A node according to claim 10, wherein the mobility profile allows applying mobility specific functionalities in a server side in a similar manner that has been provided with other managed containers.

12. (Previously presented) A node according to claim 10, wherein mobility specific functions include either accounting charging, subscriber management, authentication, identity management, authorization policy management, device profile management, session & transaction management, service registry, workflow management.

13. (Original) A node according to claim 10, wherein the mobility profile is either instantiated on top of an existing container, or implemented as an independent container.

14. (Original) A node according to claim 10, wherein the node instantiates the mobility profile to a given container in a manner that then makes it possible to provide mobility profile contracts to the components utilizing available functionalities.

15. (Original) A node according to claim 10, wherein the node instantiates the mobility profile in a separate container to allow fine-tuning of the mobility specific capabilities with respect to existing resources.

16. (Original) A node according to claim 10, wherein the node implements the functionalities available as a packaged profile for mobility components that are not available in a given container specification.

17. (Original) A node according to claim 10, wherein the node includes a mobility profile module for instantiating the mobility profile.

18. (Original) A node according to claim 10, wherein the node forms part of an application node.

19. (Previously presented) A method according to claim 10, wherein the node forms part of an application node, or a core network.

20. (Original) A method according to claim 1, wherein the method further comprises implementing the step of the method via a computer program running in a processing means in a mobility profile module or other suitable module.

21. (Original) A computer program product with a program code, which program code is stored on a machine readable carrier, for carrying out the steps according to claim 1 when the computer program is run in a processing means in a mobility profile module or other suitable module.

X. EVIDENCE APPENDIX

None.

XI. RELATED PROCEEDINGS APPENDIX

None.